

# Pineapple

Carrier Transicold's EverFRESH® active controlled atmosphere (CA) system for refrigerated containers now offers a new carbon dioxide (CO<sub>2</sub>) injection option to better preserve the full range of perishable cargo, including low-respiring cargo. The new option allows the container to be pre-charged with CO<sub>2</sub> at the start of a voyage and automatically adds more as needed over the course of the trip.

**Optimum Temperature:** 7.0-8.0°C

**Optimum CA levels:** O<sub>2</sub>: 2.0-5.0%, CO<sub>2</sub>: < 2.0%

**Weeks in Air:** 2-4

**Weeks in CA:** 4-6

**Relative Humidity:** 85-90%

## Benefits of CA:

Low O<sub>2</sub> can delay senescence and reduce flesh translucency. (water-soaked flesh) Elevated CO<sub>2</sub> delays de-greening of crown.

## Ethylene:

Pineapples fruits produce very little ethylene and are not sensitive to it, but the leaves on their crown are sensitive. Ethylene can enhance decay in leaves, especially in folded and cut surfaces. Avoiding ethylene in transit can help extend transit life potential\*.

## Special Treatments Before Shipping:

Pineapples fruits need to be waxed to maintain good peel appearance and prevent the leaves on the eyes to dry out giving a non-fresh appearance, and reduce chilling symptoms (there are a number of available waxes). The wax also provides an MA effect which can help reduce internal browning and translucency. These waxes can cause browning of the leaves of the crown.



## Mixed Loads:

Pineapples can be shipped in mixed load with same temperature and CA requirements. Pineapples readily absorb off-odors from avocados and green peppers.

## Cautions:

Pineapples are very sensitive to chilling < 7.5°C (water-soaked, translucency, fermentation-like discolorations). O<sub>2</sub> <2% can cause off-flavors. The older traditional commercial variety "Smooth cayenne" (Champaka) could be shipped under high CO<sub>2</sub> up to 8-10% without negative effects. However the newer sweet variety MD2 type is very sensitive to CO<sub>2</sub> >2% which can cause off flavors, flesh translucency, and fermentation.



EverFRESH®